

SOLIS, ECOS & G2 Battery Sensor Flushometers by Sloan Valve Company

Health Product Declaration v2.1

CLASSIFICATION: 22 42 43 Flushometers

created via: HPDC Online Builder

PRODUCT DESCRIPTION: Diaphragm flushometers are precision metering valves designed to deliver a preset volume of water to a sanitary fixture (i.e., toilets and urinals). The ECOS, SOLIS, G2 and Sloan are all top mounted, battery operated sensor flushometers with the following features: ECOS ■ Automatically activates by means of an infrared sensor with multi-focused lobular sensing fields ■ Automatically initiates a 1.1 gpf or 1.6 gpf flush based on how long use remains in sensor range ■ Buttons on top of the flush valve enable manual flushing with a standard or reduced flush at restroom visitor's discretion ■ Fixed metering bypass and no external volume adjustment to ensure water conservation G2 ■ Automatically operates by means of an infrared sensor with multiple-focused lobular sensing fields for high and low target detection ■ User friendly, three-second flush delay and Courtesy Flush® override button ■ Adjustable tailpiece ■ Available in high efficiency (1.28 gpf/4.8 Lpf) models SOLIS ■ Automatically operates by means of an infrared sensor with multiple-focused lobular sensing fields for high and low target detection ■ User friendly, three-second flush delay and Courtesy Flush® override button ■ Adjustable tailpiece ■ Available in high efficiency (1.28 gpf/4.8 Lpf) and (1.1 gpf/4.2 Lpf) models

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
 Basic Method

Threshold Disclosed Per

- Material
 Product

Threshold level

- 100 ppm
 1,000 ppm
 Per GHS SDS
 Per OSHA MSDS
 Other

Residuals/Impurities

Residuals/Impurities Considered in 1 of 1 Materials

Explanation(s) provided for Residuals/Impurities?

- Yes No

Are All Substances Above the Threshold Indicated:

Characterized

Percent Weight and Role Provided?

- Yes No

Screened

Using Priority Hazard Lists with Results Disclosed?

- Yes No

Identified

Name and Identifier Provided?

- Yes No

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE

BATTERY SENSOR FLUSHOMETER [COPPER (COPPER) **LT-UNK** ZINC (ZINC) **LT-P1** | AQU | END | MUL | PHY SILOXANES AND SILICONES, DI-ME, HYDROXY-TERMINATED (SILOXANES AND SILICONES, DI-ME, HYDROXY-TERMINATED) **BM-2** LEAD (LEAD) **LT-1** | MAM | AQU | DEL | REP | CAN | PBT | MUL | END | GEN ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM) (ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM)) **LT-UNK** 1,3,5-TRIOXANE, POLYMER WITH 1,3-DIOXOLANE (1,3,5-TRIOXANE, POLYMER WITH 1,3-DIOXOLANE) **LT-UNK** ALUMINUM (ALUMINUM) **LT-P1** | RES | END | PHY TIN (TIN) **LT-P1** SOLID / PLATE GLASS (SOLID / PLATE GLASS) **LT-UNK** CARBONIC DICHLORIDE, POLYMER WITH 4,4'-(1-METHYLETHYLIDENE)BIS(PHENOL), 4-(1-METHYL-1-PHENYLETHYL)PHENYL ESTER (CARBONIC DICHLORIDE, POLYMER WITH 4,4'-(1-METHYLETHYLIDENE)BIS(PHENOL), 4-(1-METHYL-1-PHENYLETHYL)PHENYL ESTER) **NoGS** STAINLESS STEEL (STAINLESS STEEL) **NoGS** BRASS (BRASS) **NoGS** POLY(OXYMETHYLENE), _-ACETYL-_- (ACETYLOXY)- (POLY(OXYMETHYLENE), _-ACETYL-_- (ACETYLOXY)-) **LT-UNK** ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER (ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER) **LT-UNK** STEEL MANUFACTURE, CHEMICALS (STEEL MANUFACTURE, CHEMICALS) **LT-UNK** POLYETHYLENE (POLYETHYLENE) **LT-UNK**]

Number of Greenscreen BM-4/BM3 contents..... 0
Contents highest concern GreenScreen
Benchmark or List translator Score..... LT-1
Nanomaterial..... No

INVENTORY AND SCREENING NOTES:

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

Other: Uniform Plumbing Code

Other: Green Uniform Plumbing Code

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed

Third Party Verified?

Yes

No

PREPARER: Self-Prepared
VERIFIER: SCS Global Services
VERIFICATION #: qGE-3568

SCREENING DATE: 2017-11-28
PUBLISHED DATE: 2018-01-25
EXPIRY DATE: 2020-11-28

Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

BATTERY SENSOR FLUSHOMETER

#: 100.0000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Sloan Valve Company worked with a Third Party HPD Preparer to confirm that all residuals and impurities were considered under the preparation of this HPD. Please see the impurity notes for lead (CAS #7439-92-1).

OTHER MATERIAL NOTES:

COPPER (COPPER)

ID: 7440-50-8

#: 46.4140 GS: LT-UNK RC: None NANO: No ROLE: Structure

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

ZINC (ZINC)

ID: 7440-66-6

#: 29.2440 GS: LT-P1 RC: None NANO: No ROLE: Structure

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ACUTE AQUATIC

EU - R-phrases

R50 - Very Toxic to Aquatic Organisms

ACUTE AQUATIC

EU - GHS (H-Statements)

H400 - Very toxic to aquatic life

CHRON AQUATIC

EU - GHS (H-Statements)

H410 - Very toxic to aquatic life with long lasting effects

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H250 - Catches fire spontaneously if exposed to air

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H260 - In contact with water releases flammable gases which may ignite spontaneously

SUBSTANCE NOTES:

SILOXANES AND SILICONES, DI-ME, HYDROXY-TERMINATED (SILOXANES AND SILICONES, DI-ME, HYDROXY-TERMINATED)

ID: 70131-67-8

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

LEAD (LEAD)

ID: 7439-92-1

#: **Impurity/Residual**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Impurity/Residual**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

MAMMALIAN

EU - R-phrases

R20 - Harmful by Inhalation (gas or vapor or dust/mist)

MAMMALIAN

EU - R-phrases

R22 - Harmful if Swallowed

ACUTE AQUATIC

EU - R-phrases

R50 - Very Toxic to Aquatic Organisms

DEVELOPMENTAL

EU - R-phrases

R61 - May cause harm to the unborn child

REPRODUCTIVE

EU - R-phrases

R62 - Possible risk of impaired fertility

DEVELOPMENTAL

G&L - Neurotoxic Chemicals

Developmental Neurotoxicant

CANCER

US EPA - IRIS Carcinogens

(1986) Group B2 - Probable human Carcinogen

CANCER

IARC

Group 2a - Agent is probably Carcinogenic to humans

CANCER

IARC

Group 2b - Possibly carcinogenic to humans

CANCER

CA EPA - Prop 65

Carcinogen

DEVELOPMENTAL

CA EPA - Prop 65

Developmental toxicity

PBT

US EPA - Priority PBTs (NWMP)

Priority PBT

PBT

WA DoE - PBT

PBT

REPRODUCTIVE

CA EPA - Prop 65

Reproductive Toxicity - Female

REPRODUCTIVE

CA EPA - Prop 65

Reproductive Toxicity - Male

CANCER

US NIH - Report on Carcinogens

Reasonably Anticipated to be Human Carcinogen

PBT

US EPA - Priority PBTs (PPT)

Priority PBT

PBT

US EPA - Toxics Release Inventory PBTs

PBT

PBT

OSPAR - Priority PBTs & EDs & equivalent concern

PBT - Chemical for Priority Action

PBT

OR DEQ - Priority Persistent Pollutants

Priority Persistent Pollutant - Tier 1

DEVELOPMENTAL

US NIH - Reproductive & Developmental Monographs

Clear Evidence of Adverse Effects - Developmental Toxicity

REPRODUCTIVE

US NIH - Reproductive & Developmental Monographs

Clear Evidence of Adverse Effects - Reproductive Toxicity

ACUTE AQUATIC

EU - GHS (H-Statements)

H400 - Very toxic to aquatic life

CHRON AQUATIC

EU - GHS (H-Statements)

H410 - Very toxic to aquatic life with long lasting effects

DEVELOPMENTAL	EU - GHS (H-Statements)	H360Df - May damage the unborn child. Suspected of damaging fertility
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
DEVELOPMENTAL	EU - GHS (H-Statements)	H362 - May cause harm to breast-fed children
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
REPRODUCTIVE	New Zealand - GHS	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1A
GENE MUTATION	MAK	Germ Cell Mutagen 3a
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A

SUBSTANCE NOTES: Lead is present in this product as an unavoidable impurity of the copper and brass alloy components.

ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM) (ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM))

ID: 25038-36-2

#: 1.2270 GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES:

1,3,5-TRIOXANE, POLYMER WITH 1,3-DIOXOLANE (1,3,5-TRIOXANE, POLYMER WITH 1,3-DIOXOLANE)

ID: 24969-26-4

#: 1.0720 GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES:

ALUMINUM (ALUMINUM)

ID: 7429-90-5

#: 1.0360 GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS: AGENCY(IES) WITH WARNINGS:

RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H228 - Flammable solid
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H261 - In contact with water releases flammable gases

SUBSTANCE NOTES:

TIN (TIN)

ID: 7440-31-5

#: **0.9730** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

SOLID / PLATE GLASS (SOLID / PLATE GLASS)

ID: 65997-17-3

#: **0.9550** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

CARBONIC DICHLORIDE, POLYMER WITH 4,4'-(1-METHYLETHYLIDENE)BIS(PHENOL), 4-(1-METHYL-1-PHENYLETHYL)PHENYL ESTER (CARBONIC DICHLORIDE, POLYMER WITH 4,4'-(1-METHYLETHYLIDENE)BIS(PHENOL), 4-(1-METHYL-1-PHENYLETHYL)PHENYL ESTER)

ID: 111211-39-3

#: **0.6840 - 0.8130** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

STAINLESS STEEL (STAINLESS STEEL)

ID: 12597-68-1

#: **0.6290** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

BRASS (BRASS)

ID: 12597-71-6

#: **0.4090** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

POLY(OXYMETHYLENE), _-ACETYL- _-(ACETYLOXY)- (POLY(OXYMETHYLENE), _-ACETYL- _-(ACETYLOXY)-)

ID: 25231-38-3

#: **0.2990** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER (ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER)

ID: 9003-56-9

#: **0.2240 - 0.9200** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

STEEL MANUFACTURE, CHEMICALS (STEEL MANUFACTURE, CHEMICALS)

ID: 65997-19-5

#: **0.1650** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

POLYETHYLENE (POLYETHYLENE)

ID: 9002-88-4

#: **0.1460** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

SUBSTANCE NOTES:

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

OTHER

Uniform Plumbing Code

CERTIFYING PARTY: Third Party	ISSUE DATE: 2017-08-01	EXPIRY DATE: 2018-08-01	CERTIFIER OR LAB: IAPMO R&T
APPLICABLE FACILITIES: Sloan Valve Company 10500 SEYMOUR AVE FRANKLIN PARK, IL 60131-1259			
CERTIFICATE URL: http://pld.iapmo.org/file_info.asp?file_no=0003349			

CERTIFICATION AND COMPLIANCE NOTES: Sloan Flushometer Valves (Urinal or Water Closet) are in compliance with the following codes: Uniform Plumbing Code (UPC®); National Plumbing Code of Canada; International Plumbing Code (IPC®). Sloan Flushometer Valves are also in compliance with the following standards: ASSE 1037-2015/ ASME A112.1037-2015/ CSA B125.37-15.

OTHER

Green Uniform Plumbing Code

CERTIFYING PARTY: Third Party	ISSUE DATE: 2017-04-01	EXPIRY DATE: 2018-04-01	CERTIFIER OR LAB: IAPMO R&T
APPLICABLE FACILITIES: SLOAN VALVE COMPANY 10500 SEYMOUR AVE. FRANKLIN PARK, IL 60131-1259			
CERTIFICATE URL: http://pld.iapmo.org/file_info.asp?file_no=0007354			

CERTIFICATION AND COMPLIANCE NOTES: Sloan flushometers are in compliance with the following standards: IAPMO Green Plumbing & Mechanical Code Supplement 2015; Cal Green - 2016; and LEEDv4 - Updated July 2017.

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

Section 5: General Notes

SOLIS The SOLIS is powered by a state-of-the-art photovoltaic technology that delivers sustainable and reliable solar

operation. It is available in 0.5 gpf, 0.25 gpf, 0.125 gpf, 1.28 gpf, 1.1 gpf and 1.6/1.1 dual-flush with Smart Sense Technology™ for controlled efficiency with every flush. The sensor automatically initiates a heavy or light flush based on how long user remains in sensor range and operates by means of an infrared sensor with multiple-focused, lobular sensing fields for high and low target detection. Sloan SOLIS® Solar powered Flushometers incorporate an intuitive button design for easy manual activation. ECOS The ECOS battery powered sensor flushometer is available in 0.5 gpf, 0.25 gpf, 0.125 gpf, 1.28 gpf, 1.1 gpf and 1.6/1.2 dual-flush with Smart Sense Technology™ for controlled efficiency with every flush. The push button(s) on top of the flush valve enable manual flushing with a standard or reduced flush at restroom visitor's discretion. G2 Sloan's G2 is a battery powered 1.28 gpf sensor flushometer. A push button on top of the flush valve enable manual flushing at restroom visitor's discretion.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Sloan Valve Company**

ADDRESS: **10500 Seymour Avenue
Franklin Park IL 60131, USA**

WEBSITE: **sloan.com**

CONTACT NAME: **Patrick Boyle**

TITLE: **Director, Corporate Sustainability**

PHONE: **1 847.233.2082**

EMAIL: **Patrick.Boyle@sloan.com**

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

AQU Aquatic toxicity	GLO Global warming	PHY Physical Hazard (reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive toxicity
DEV Developmental toxicity	MUL Multiple hazards	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	OZO Ozone depletion	LAN Land Toxicity
GEN Gene mutation	PBT Persistent Bioaccumulative Toxic	NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible Benchmark 1
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator Likely Benchmark 1
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS Unknown (no data on List Translator Lists)
BM-U Benchmark Unspecified (insufficient data to benchmark)	

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology

Third Party Verified Verification by independent certifier approved by HPDC

Preparer Third party preparer, if not self-prepared by manufacturer

Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.